Claims:

1. A medical device that releases drugs for the selective therapy of specific diseased tissues or organ parts, characterized in that lipophilic, largely water-insoluble drugs that bind to any tissue components adhere to the surfaces of devices that come into contact with the diseased tissue by being pressed against it at least for a short time and immediately release the active agent when in contact with tissue.

2. The device according to claim 1, characterized in that balloon catheters without stents or in conjunction with stents, catheters and/or parts thereof, needles and guiding wires as well as stents are used as carriers of the active agent(s).

3. The device according to claim 2, characterized in that balloons with preformed longitudinal folds are used for drug coating, and that their inclination to refold is not lost due to inflation.

4. The device according to claim 2, characterized in that the balloons consist of a very smooth material to which drugs adhere sufficiently well to resist the forces required for folding essentially without damage.

5. The device according to claim 2, characterized in that balloons coated by immersion in a low-viscosity active agent solution in fully folded condition are used.

6. The device according to any one of claims 2 through 5, characterized in that only the area covered by the folds is covered with the drug that was dried after application.

7. The device according to claim 1, characterized in that the lipophilic drugs are inhibitors of cell proliferation or inflammatory processes, or antioxidants.

8. The apparatus according to claim 7, characterized in that the drugs used are Paclitaxel and other taxanes, Rapamycin and related substances, tacrolimus and related substances, corticoids, sexual hormones and related substances, statins, epothilones, probucol, prostacyclins, angiogenesis inducers.

9. The apparatus according to claim 7 or 8, characterized in that the lipophilic drugs are present as dry solids or oils on the surface of the respective product.

10. The device according to claim 9, characterized in that the effective dose of the drug includes amorphous structures with particle sizes ranging from

<0.1 microns to 5 microns that dissolve fast due to their large surface area and despite the poor water-solubility of the active ingredients.

11. The apparatus according to claim 1, characterized in that said lipophilic drugs are embedded in a readily water-soluble matrix substance to achieve good adhesion to the surface of the device and improve absorption by the tissue.

12. The apparatus according to claim 11, characterized in that said matrix substance consists of a low-molecular hydrophilic substance with a molecular weight <5000 D.

13. The device according to claim 1, characterized in that said lipophilic drugs are absorbed to particles or applied to the surface of the device with a low-molecular matrix.

14. The device according to claim 1, characterized in that the surfaces are additionally coated with substances that influence specific properties such as the gliding quality of the device or that prevent blood coagulation.

15. A method for producing the device according to claims 1 through 14, characterized in that the lipophilic drugs and excipients in a solution, suspension or emulsion medium are applied using an immersion,

spreading, or spraying process or an instrument which delivers a defined volume to the surface of the device while excess media and substances that adhere loosely to the surface are removed.

16. The method according to claim 15, characterized in that the coating process is carried out repeatedly for a reproducible increase of the active agent content with the same or different solution, suspension, or emulsion media and/or excipients.

17. The method according to claim 16, characterized in that ethanol, isopropanol, ethyl acetate, diethyl ether, acetone, dimethyl sulfoxide, dimethyl formamide, glycerin, water or mixtures thereof are used as solution, suspension, and emulsion media.

18. The method according to one of claims 15 through 17, characterized in that balloons folded ready for use that are provided as drug carrier to be coated prior to or after sterilization with or without a crimped-on stent.

19. The method according to claim 18, characterized in that the balloons are coated with the respective lipophilic drugs in unfolded condition and that the balloons are folded with a particularly lubricating tool optionally wetted with biocompatible, gliding agents.

20. The method according to claim 15, characterized in that stents connected with a balloon catheter are attached prior to or after coating.

21. The method according to claim 15, characterized in that the completely coated device is sterilized using ethylene oxide.

22. Use of the medical devices designed and produced according to claims 1 through 21 for treating vascular diseases or circulation disturbances.

23. Use of the medical devices designed and produced according to claims 1 through 21 for creating open passages in the body.